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Application No.: 09/772,176

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for adapting to ~~rapid~~ changes affecting a ~~signaling path in a~~ wireless signal ~~link~~, comprising:

calculating a metric of a modulated signal, the metric indicative of ~~motion of at least one station in the link or motion of objects~~ a change in the signaling path as a function of a change in at least one modulation attribute of the modulated signal ~~transmitted across the wireless link~~, the modulation attribute being at least one of amplitude, frequency, ~~and~~ or phase; and

adjusting at least one signaling parameter ~~of the wireless link~~ based ~~at least~~ on the metric to compensate for the ~~rapid~~ changes affecting the signaling path.

2. (Currently amended) The method as ~~claimed~~ in Claim 1, wherein the metric is calculated by a mobile station.

3. – 4. (Canceled)

5. (Currently amended) The method as ~~claimed~~ in Claim 1, wherein the metric is ~~computed~~ calculated from a signal in an automatic gain control (AGC) loop ~~in a receiver unit~~.

6. (Currently amended) The method as ~~claimed~~ in Claim 5, wherein the metric is a function of a statistic of the signal in the AGC loop.

7. (Currently amended) The method as ~~claimed~~ in Claim 6, wherein the statistic is variance.

8. (Currently amended) The method as ~~claimed~~ in Claim 1, wherein the metric is ~~computed~~ calculated from a phase error signal produced by at least one of a delay lock loop, matched filter, or correlator ~~in a receiver unit~~.

9. (Currently amended) The method as ~~claimed~~ in Claim 8, wherein the metric is a function of a statistic of the phase error signal.

10. (Currently amended) The method as ~~claimed~~ in Claim 9, wherein the statistic is variance.

11. (Currently amended) The method as ~~claimed~~ in Claim 1, wherein the metric is ~~computed~~ calculated from a frequency error signal in a frequency control loop ~~in a receiver unit~~.

12. (Currently amended) The method as ~~claimed~~ in Claim 11, wherein the metric is a function of a statistic of the frequency error signal.

13. (Currently amended) The method as ~~claimed~~ in Claim 12, wherein the statistic is variance.

14. (Currently amended) The method as ~~claimed~~ in Claim 1, further ~~including~~ comprising:

comparing the metric to a threshold level.

15. (Currently amended) The method as ~~claimed~~ in Claim 1, wherein the adjusting ~~the at least one parameter of the wireless link~~ comprises changing an antenna mode.

16. (Currently amended) The method as ~~claimed~~ in Claim 15, wherein changing an antenna mode comprises changing from directive to omni-directional.

17. (Currently amended) The method as ~~claimed~~ in Claim 15, wherein changing an antenna mode comprises changing from omni-directional to directive.

18. (Currently amended) The method as ~~claimed~~ in Claim 1, wherein the at least one signaling parameter includes at least one of ~~the following:~~ a data transfer rate, a power level, an FEC coding rate, a modulation attribute, or an antenna characteristic.

19. (Currently amended) The method as ~~claimed~~ in Claim 18, wherein the adjusting ~~the at least one parameter~~ includes reducing at least one of ~~the following to a minimum level:~~ the data transfer rate, the FEC coding rate, or the modulation attribute, to a minimum level.

20. (Canceled)

21. (Currently amended) An apparatus for adapting to ~~rapid~~ changes affecting ~~the a signaling path in~~ a wireless signal ~~link~~, comprising:

a processing unit configured to calculate a metric of a modulated signal, the metric indicative of ~~motion of a station or motion of objects~~ a change in the signaling path as a function of a change in at least one modulation attribute of the modulated signal ~~transmitted across the wireless link~~, the modulation attribute being at least one of amplitude, frequency, ~~and~~ or phase; and

a compensator configured to adjust at least one signaling parameter ~~of the wireless link~~ based on ~~at least~~ the metric to compensate for the ~~rapid~~ changes affecting the signaling path.

22. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, wherein the processing unit is located in a mobile station.

23. – 24. (Canceled)

25. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, wherein the processing unit ~~computes~~ is configured to calculate the metric from a signal in an automatic gain control (AGC) loop ~~in a receiver unit~~.

26. (Currently amended) The apparatus as ~~claimed~~ in Claim 25, wherein the metric is a function of a statistic of the signal in the AGC loop.

27. (Currently amended) The apparatus as ~~claimed~~ in Claim 26, wherein the statistic is variance.

28. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, wherein the processing unit is configured to ~~compute~~ calculate the metric from a phase error signal produced by at least one of a delay lock loop, a matched filter, or a correlator ~~in a receiver unit~~.

29. (Currently amended) The apparatus as ~~claimed~~ in Claim 28, wherein the metric is a function of a statistic of the phase error signal.

30. (Currently amended) The apparatus as ~~claimed~~ in Claim 29, wherein the statistic is variance.

31. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, wherein the processing unit is configured to ~~compute~~ calculate the metric from a frequency error signal in a frequency control loop ~~in a receiver unit~~.

32. (Currently amended) The apparatus as ~~claimed~~ in Claim 31, wherein the metric is a function of a statistic of the frequency error signal.

33. (Currently amended) The apparatus as ~~claimed~~ in Claim 32, wherein the statistic is variance.

34. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, wherein the processing unit is configured to compare the metric to a threshold level.

35. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, ~~additionally~~ further comprising:

an antenna having a changeable antenna mode, wherein the compensator is configured to change the antenna mode.

36. (Currently amended) The apparatus as ~~claimed~~ in Claim 35, wherein the ~~antenna~~ compensator is configured to change the mode from directive to omni-directional.

37. (Currently amended) The apparatus as ~~claimed~~ in Claim 35, wherein the ~~antenna~~ compensator is configured to change the mode from omni-directional to directive.

38. (Currently amended) The apparatus as ~~claimed~~ in Claim 21, wherein the at least one signaling parameter includes at least one of ~~the following:~~ a data transfer rate, a power level, an FEC coding rate, a modulation attribute, or an antenna characteristic.

39. (Currently amended) The apparatus as ~~claimed~~ in Claim 38, wherein the compensator is configured to reduce at least one of ~~the following to a minimum level:~~ the data transfer rate, the FEC coding rate, or the modulation attribute, to a minimum level.

40. – 41. (Canceled)

42. (Currently amended) A computer-readable storage medium ~~having stored thereon sequences of computer readable~~ containing a set of instructions for a general purpose computer, ~~the sequences of instructions including instructions that, when executed by a processor,~~ the set of instructions comprising:

a signal adaptation code segment configured to cause ~~the~~ a processor to control a signaling path ~~in a wireless link~~ to adapt to ~~rapid~~ changes affecting the signaling path, ~~the instructions further causing the processor to:~~

a calculating code segment configured to calculate a metric of a modulated signal indicative of ~~motion of at least one station in the link or motion of objects~~ a change in the signaling path as a function of a change in at least one modulation attribute of the modulated signal ~~transmitted across the wireless link~~, the modulation attribute being at least one of amplitude, frequency, ~~and~~ or phase; and

~~adjusting a~~ an adjusting code segment configured to adjust at least one signaling parameter ~~of the wireless link~~ based on ~~at least~~ the metric to compensate for the ~~rapid~~ changes affecting the signaling path.